JPRS 78858

28 August 1981

Worldwide Report

TELECOMMUNICATIONS POLICY, RESEARCH AND DEVELOPMENT

No. 178

FBIS FOREIGN BROADCAST INFORMATION SERVICE

NOTE

JPRS publications contain information primarily from foreign newspapers, periodicals and books, but also from news agency transmissions and broadcasts. Materials from foreign-language sources are translated; those from English-language sources are transcribed or reprinted, with the original phrasing and other characteristics retained.

Headlines, editorial reports, and material enclosed in brackets [] are supplied by JPRS. Processing indicators such as [Text] or [Excerpt] in the first line of each item, or following the last line of a brief, indicate how the original information was processed. Where no processing indicator is given, the information was summarized or extracted.

Unfamiliar names rendered phonetically or transliterated are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear in the original but have been supplied as appropriate in context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by source.

The contents of this publication in no way represent the policies, views or attitudes of the U.S. Government.

PROCUREMENT OF PUBLICATIONS

JPRS publications may be ordered from the National Technical Information Service, Springfield, Virginia 22161. In ordering, it is recommended that the JPRS number, title, date and author, if applicable, of publication be cited.

Current JPRS publications are announced in Government Reports Announcements issued semi-monthly by the National Technical Information Service, and are listed in the Monthly Catalog of U.S. Government Publications issued by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Indexes to this report (by keyword, author, personal names, title and series) are available from Bell & Howell, Old Mansfield Road, Wooster, Ohio 44691.

Correspondence pertaining to matters other than procurement may be addressed to Joint Publications Research Service, 1000 North Glebe Road, Arlington, Virginia 22201.

JPRS 78858

28 August 1981

WORLDWIDE REPORT

TELECOMMUNICATIONS POLICY, RESEARCH AND DEVELOPMENT

No. 178

CONTENTS

ASIA

INDIA

Fiber Optic Communications Being Developed (PATRIOT, 25 Jul 81) 1

Information Minister Tells Plans for All-India Radio (PATRIOT, 22 Jul 81) 2

Thirteen Experiments Planned Under 'APPLE' Program (PATRIOT, 24 Jul 81) 3

'APPLE' Seen as Proof of Quality of Indian Technology (THE TIMES OF INDIA, 17 Jul 81) 4

INSAT-1 Scheduled for Launch on 8 Apr 1982 (PATRIOT, 19 Jul 81) 7

Briefs
- 'APPLE' TDMA Experiment 8
- Color Television Plans 8
- Satellite Link for Northeast 9

PEOPLE'S REPUBLIC OF CHINA

Nanjing Fiber Optic Communications Line Tested (DIANLI JISHU, 5 Apr 81) 10

LATIN AMERICA

CUBA

Radio Havana Cuba's 20th Anniversary Marked (CUBA INTERNACIONAL, Jun 81) 17

Aims, Objectives Reported, by Agenor Marti
Alfredo Vinas' Comments
Opinions, Music, Programs

JAMAICA

Briefs
Second TV Channel 26

SUB-SAHARAN AFRICA

CONGO

Future Plans for National Posts and Communications Office (Mayouma Mbaloula; MWETI, 7 Jul 81) 27

NIGERIA

Telecommunications Projects Reviewed (Stanely Egbochuku; BUSINESS TIMES, 3 Aug 81) 29

Backlogged Demand for Telephones
Telecommunications Projects, Contractors

SOUTH AFRICA

Further Details of Black TV Programming Given (THE CITIZEN, 14 Aug 81) 31

TANZANIA

Briefs
Dar es Salaam-Montreal Phone Link 32

WEST EUROPE

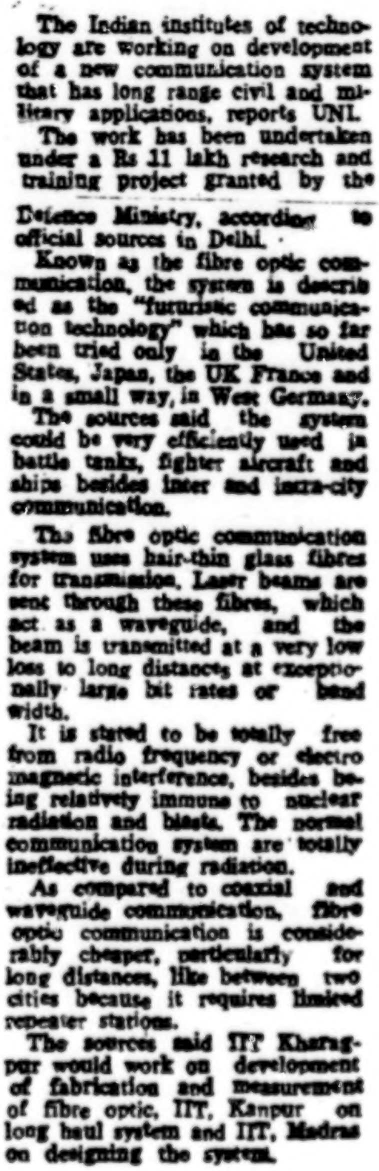
SWITZERLAND

New Constitutional Amendment Planned on Radio, TV (NEUE ZUERCHER ZEITUNG, 19, 20 Jul 81) 33

FIBER OPTIC COMMUNICATIONS BEING DEVELOPED

New Delhi PATRIOT in English 25 Jul 81 p 5

[Text]



The Indian institutes of technology are working on development of a new communication system that has long range civil and military applications, reports UNI.

The work has been undertaken under a Rs 11 lakh research and training project granted by the Defence Ministry, according to official sources in Delhi.

Known as the fibre optic communication, the system is described as the "futuristic communication technology" which has so far been tried only in the United States, Japan, the UK France and in a small way, in West Germany.

The sources said the system could be very efficiently used in battle tanks, fighter aircraft and ships besides inter and intra-city communication.

The fibre optic communication system uses hair-thin glass fibres for transmission. Laser beams are sent through these fibres, which act as a waveguide, and the beam is transmitted at a very low loss to long distances at exceptionally large bit rates or band width.

It is stated to be totally free from radio frequency or electro magnetic interference, besides being relatively immune to nuclear radiation and blasts. The normal communication system are totally ineffective during radiation.

As compared to coaxial and waveguide communication, fibre optic communication is considerably cheaper, particularly for long distances, like between two cities because it requires limited repeater stations.

The sources said IIT Kharagpur would work on development of fabrication and measurement of fibre optic, IIT, Kanpur on long haul system and IIT, Madras on designing the system.

INFORMATION MINISTER TELLS PLANS FOR ALL-INDIA RADIO

New Delhi PATRIOT in English 22 Jul 81 p 5

[Text]

All India Radio is to have an additional channel to relay programmes connected with national integration and unity according to Minister of Information and Broadcasting Vasant Sathe, reports UNI.

According to Mr Sathe, the channel will release time for radio stations to put out more regional programmes. It will eventually carry programmes to all parts of the country.

The national channel will have a 1,000 kilowatt medium wave transmitter at Nagpur which will be supported by a number of medium wave transmitters. When the scheme is implemented, the AIR listeners will have a choice of three channels—the local radio station, the regional radio station and the national channel.

The Ministry also proposes to make a beginning during the sixth five year Plan with local radio stations.

This is a new concept in radio and would involve larger community participation in programmes. Each station will cover an area within a radius of 25 kilometres.

The main thrust during the sixth Plan will be on consolidating the existing AIR services which are threatened with severe erosion because of the increasing intrusions from the transmitters of the neighbouring countries.

As it is, most of the AIR stations are not heard within the country or even within the State because of these intrusions. During the Plan period (1980-85) it is proposed to augment the power of the transmitters, set up new radio stations in uncovered pockets and provide an integrated shortwave service for the northeastern region.

Six new stations are to be set up at Tura (Meghalaya), Gangtok, Itanagar, Agra, Jamshedpur and Madurai.

It is also proposed to augment the external services so that the authentic voice of India is heard abroad. Six new power transmitters—four 200 shortwave transmitters at Aligarh and two 500 KW shortwave transmitters at Bangalore, are planned to be set up before 1985.

CSO: 5500

INDIA

THIRTEEN EXPERIMENTS PLANNED UNDER 'APPLE' PROGRAM

New Delhi PATRIOT in English 24 Jul 81 p 5

[Text]

BANGALORE, July 23 (UNI)—Thirteen technical and social experiments are planned under the APPLE utilisation programme.

While nine of them would be technical experiments, the rest would be in the fields of communication, railway wagon movement monitoring and banking operations.

The technical experiments are: Time Division Multiple Access (TDMA): satellite access in time division mode permitting ultilisation of full power and band-width by each accessing station resulting in increased channel capacity and inheriting advantages of digital communication.

Spread Spectrum Multiple Access (ASSMA): provides secrecy and security of communications. Random access packet switching: useful for computer sharing reservation and such applications.

TV with multiple audio: useful for television transmission with multiple voice music that could be utilised for multilingual countries like India.

Facsimiles transmission: useful for transmitting pictures, texts and hand-written matters.

Network integration: facilitates direct dialling, STD destinations connected to the exchange via satellite circuit.

Digital communication multiple access: provides for good quality link offering inherent advantages of digital communication.

Small communication terminal: provides for emergency voice or teleprinter links for various applications.

Social experiments: television networking: many national events such as Independence Day, Republic Day, sports and games could be broadcast.

Satellite communication course: aimed at gaining experience in the use of a satellite network for university level education, and providing for visual teaching package.

Wagon racking for Indian railways: aimed at feeding wagon movement information from various interchange points to centralised railway board computer at Delhi with minimum possible delay.

CSO: 5500

'APPLE' SEEN AS PROOF OF QUALITY OF INDIAN TECHNOLOGY

Bombay THE TIMES OF INDIA in English 17 Jul 81 pp 1, 13

[Text] With APPLE having entered today its assigned niche in the geosynchronous orbit 36,000 km. high over the equator at 102 east longitude, India has once again demonstrated proof of its emerging technological prowess. It has shown that it is able not only to build a satellite of complex hardware and configuration, but also put it in geostationary orbit and then nudge it along to a predetermined position.

Even if it is conceded that the initial booster power was provided by the European space agency's Ariane rocket, India's achievement is notable because only eight countries have accomplished this feat before. APPLE has thus taken India to a high technology orbit.

There is justifiable elation in scientific circles over this gigantic stride which they have a special reason to be proud of. Coming in the wake of the disastrous end of Rohini-II which burned up in the atmosphere just nine days after launching, APPLE imparts a tremendous boost to their shaken morale. It restores their confidence not only in themselves, but also in our young technology.

Tricky Business

The jamming of one of APPLE's two solar panels designed to power the satellites vital system is a matter of some anxiety, but there is optimism now that even with curtailed power most of the objectives of the mission, experimental primarily, can be realized.

Space launchings are a tricky business. Any of the millions of components in one of a number of systems can mess up things and scuttle the mission. Even the Soviet Union and the United States, with over two decades of experience and sophisticated technology they have, still face this element of gamble. Their performance in the early years of the space era was simply miserable.

Against this, India, with a negligible fraction of the immense resources at the disposal of these two giants, has shown a better record so far. APPLE is the latest example of this technological excellence.

APPLE is the fifth satellite project undertaken by India and the most complex to date. Naturally it gave some jittery moments to our space planners. The most crucial test of their capability came while moving the 670-kg satellite from the highly elongated transfer orbit in which the Ariane rocket and placed it on June 19, to a circular one. The operation called for meticulous timing and impeccable performance of the control and guidance systems. The APPLE apogee boost motor had to be fitted, for instance, for a precise period at exactly the moment when the satellite was at the extreme point in its elliptical orbit. Despite lack of experience, this job was done with enviable finesse.

The second critical task involved orientation of APPLE's solar panel to track the sun continuously while keeping its antenna pointed toward earth. With one solar panel out of commission, it was important that the only other power source was helped deliver its capacity of 140 watts for conducting various operations. But the asymmetry of the craft on account of the non-deployed solar panel made the job somewhat difficult. The problem resolved itself when an intricate momentum wheel was activated and APPLE was three-axis stabilised against roll, pitch and yaw. After these two difficult manoeuvres, raising of APPLE's orbit and reversing the satellite's eastward drift was rather simple. An array of 16 thrusters facilitated these minor adjustments.

Indigenous Effort

Most of the elements and systems needed for the mission were fabricated indigenously. For instance, the payload integration of the "C" band transponder (communications aid) was developed by the Space Applications Centre in Ahmedabad, while the honeycomb structure of the satellite was fabricated by the Nasik division of Hindustan Aeronautics Limited. The ISRO's satellite centre near Bangalore evolved, among other things, structural and thermal systems, power electronics and telemetry, tracking and command systems. The vital apogee boost motor, reaction control system and the momentum wheel for the three-axis stabilisation of the spacecraft were developed by the Vikram Sarabhai Space Centre in Trivandrum. Test and certification of reliability of these items alone will be a major desirable fallout from APPLE.

Interestingly, it is not widely known that some of the technological systems included in the APPLE payload for evaluation are so far advanced that they are not employed anywhere in the world as yet. The time division multiple access, for instance, is a new concept which may be of great practical importance to us. The system, which will help pack more signals into a single time division, will revolutionise the whole pattern of telephone traffic in the country before long.

Another major test planned is of the so-called digital communication system which holds great promise for the future. It offers, among other things, freedom from noise disturbances and enormous flexibility in handling different types of video, audio and data signals.

Similarly, the spread spectrum multiple access experiment will enable the country to evolve a communication technique which cannot be jammed or interfered with by outsiders.

The Indian Space Research Organisation and the post and telegraph department are also planning to test a small transportable communication terminal. If found suitable, it will provide two-way voice communication between any two remote parts of the country quickly and cheaply.

New Idea

The urgent need of these daring new concepts for India is at once obvious. It is a multilingual, sprawling country and the government is endeavoring to use satellite television particularly, and other satellite communication forms generally to inform, educate and entertain its people. But for economy reasons it wants to use a single multipurpose satellite in geostationary orbit for this plan.

While our space engineers are optimistic about using the new concepts in such a satellite with advantage, there are serious reservations among foreign experts about smooth workability and overall economy of such an approach.

The significance of APPLE lies here. With its antenna pointed to Nagpur in central India, it will give countrywide coverage and thus provide an opportunity to test the implications and limitations of the multipurpose satellite idea.

Data from this experiment will also be just in time to help us plan utilisation of INSAT-A, a versatile satellite, which will go into geostationary orbit over the Indian Ocean by the middle of next year.

INSAT-A is under construction to our specification by an American firm. It is meant to be used for national television and radio broadcast in one-step and also for close weather monitoring. Training of technical personnel needed to handle this satellite and its back-up, INSAT-B, and their ground support facilities is another major objective of APPLE.

According to ISRO, one of the early uses of the satellite is provision of an advanced satellite communication course to a group of ITT students. This programme will be directly telecast simultaneously in Bombay, Delhi, Madras and Kharagpur. A national hook-up on Independence Day to televise live the Prime Minister's address from Red Fort is also contemplated.

Only one thing, it seems, can upset these calculations: shortage of fuel and consequent premature demise of the satellite. A substantial part of the initial fuel charge has been used up in the tricky orbital maneuvers. So, only a fresh assessment can tell whether the current stock will see the APPLE through its projected life of two years. One estimate is that it may not last more than a year.

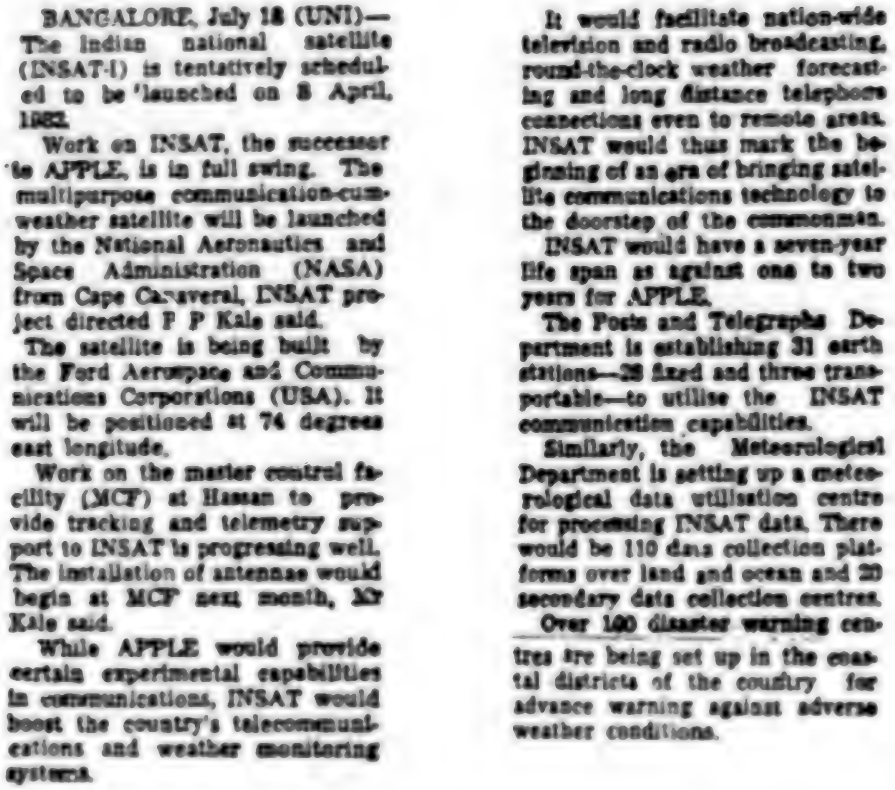
The solar power availability can also affect the functioning of the satellite. Though this view is contested officially, many experts feel that power from the single functioning solar panel--about 140 watts--will not be adequate for housekeeping as well as conducting various operations.

CSO: 5500

INSAT-1 SCHEDULED FOR LAUNCH ON 8 APR 1982

New Delhi PATRIOT in English 19 Jul 81 p 4

[Text]



BANGALORE, July 18 (UNI)—The Indian national satellite (INSAT-I) is tentatively scheduled to be 'launched on 8 April, 1982.

Work on INSAT, the successor to APPLE, is in full swing. The multipurpose communication-cum-weather satellite will be launched by the National Aeronautics and Space Administration (NASA) from Cape Canaveral, INSAT project directed P P Kale said.

The satellite is being built by the Ford Aerospace and Communications Corporations (USA). It will be positioned at 74 degrees east longitude.

Work on the master control facility (MCF) at Hassan to provide tracking and telemetry support to INSAT is progressing well. The installation of antennae would begin at MCF next month, Mr Kale said.

While APPLE would provide certain experimental capabilities in communications, INSAT would boost the country's telecommunications and weather monitoring systems.

It would facilitate nation-wide television and radio broadcasting, round-the-clock weather forecasting and long distance telephone connections even to remote areas. INSAT would thus mark the beginning of an era of bringing satellite communications technology to the doorstep of the commonman.

INSAT would have a seven-year life span as against one to two years for APPLE.

The Posts and Telegraphs Department is establishing 31 earth stations—28 fixed and three transportable—to utilise the INSAT communication capabilities.

Similarly, the Meteorological Department is setting up a meteorological data utilisation centre for processing INSAT data. There would be 110 data collection platforms over land and ocean and 20 secondary data collection centres.

Over 100 disaster warning centres are being set up in the coastal districts of the country for advance warning against adverse weather conditions.

INDIA

BRIEFS

'APPLE' TDMA EXPERIMENT--The prestigious time division multiple axis (TDMA) experiment of the P and T aboard APPLE, the nation's first telecommunication satellite, was switched on for a trial run today by the IRSO scientists at the Space Application Centre (SAC) (Ahmedabad), a spokesman of the APPLE mission control at Sriharikota told PTI. The initial results were encouraging as the signals received at Ahmedabad were "strong and satisfactory," the spokesman said. He pointed out that simultaneously through "on orbit checkouts" the mission control ensured that the satellite's health was perfect. All the systems were found to be functioning well. The TDMA, where a single frequency is used by the P and T to transmit long-distance interference-free calls with much clarity, is now likely to be made fully operational in the next two days. The spokesman pointed out that as in the case of TDMA, SAC had fixed time slots for each of the six major and three minor experiments. For the next fortnight, experiments like random access package systems (RAPS) (for testing new computer technology) would undergo a trial run before becoming oerational. Meanwhile, one of the voice and TV channels was used by the Films Division and All India Radio at the Sriharikota APPLE mission centre to record some programmes. The IRSO tracking station at Bangalore was receiving signals from the satellite via the transportable terminal set up outside the tracking station, the spokesman said. [Text] [Bombay THE TIMES OF INDIA in English 25 Jul 81 p 9]

COLOR TELEVISION PLANS--New Delhi, July 21.--The Government has decided to adopt the Phase Alternation Line system for colour television in India. PAL is one of the three systems adopted by various countries for colour television. The other two are the Systeme Electronique Couleur Avec emoire and the National Television Systems Committee. The latter is so called because it was developed by the committee in the USA to work out a system which was compartible with black and white transmissions. Both PAL and SECAM are modifications of the NTSC system. Among the major countries the PAL system is in vogue in Britain and West Germany, while France and the Soviet Union have adopted the SECAM system. The Government has entrusted the task of covering the Asian Games in colour to Doordarshan. While the domestic telecasts will be in black and white, colour coverage will be made available to foreign TV organizations operating in colour. [Text] [Calcutta THE STATESMAN in English 22 Jul 81 p 9]

SATELLITE LINK FOR NORTHEAST --Shillong, Itanagar, Agartala, Kohima and Imphal will be linked by satellite communications system during 1982-83 general manager, telecommunication northeastern circle M P Ramaswamy said yesterday. Aizawl has already been linked by the system. Mr Ramaswamy told a press conference here that the work on the STD system between Gauhati and Calcutta was in very advanced stage. It would be introduced in Aizawl, Kohima and Dimapur shortly. Mr Ramaswamy said the 18 districts selected for rural telecommunication development included north Lakhimpur, Kohima, Tuensang and Mokohetung in the north eastern region. He said the P & T had approved the proposal for long distance public telephones through multi-access radio system at Agartala and Imphal. [Text] [New Delhi PATRIOT in English 21 Jul 81 p 4]

CSO: 5500

NANJING FIBER OPTIC COMMUNICATIONS LINE TESTED

Beijing DIANLI JISHU [ELECTRIC POWER] in Chinese No 4, 5 Apr 81 pp 34-36

[Article by the Communications Research Laboratory of the Nanjing Automation Institute: "Nanjing Fiber Optic Communications Test Line"]

[Text] I. General Situation

Fiber optic communications is a new type of communications method that has emerged in the field of communications. It has a large communications capacity, strong resistance against electromagnetic interference, small transmission loss, it is convenient to install, and it can save a large amount of ferrous metals. In recent years, it has been noticed by the advanced nations. According to reports, there are at least several hundred organizations in the world engaged in fiber optic communications. At present, fiber optic communications technology has already stepped out of the laboratory and has entered into the phase of comprehensive testing. There are over 100 fiber optic communications lines in the world now being tested and operated. Our nation's fiber optic communications research began relatively late but progress has been fast. At present, our nation's postal and telcommunications and railroad departments have established testing of fiber optic communications. Becuase optical fibers can insulate themselves from electromagnetism, the superiority of fiber optic communications is more visible in applications in electric power systems. Some nations have first applied fiber optic communications in electric power systems, and even wrapped fiber optic cables with electric power cables to transmit various kinds of control information.

To utilize fiber optic communications in our nation's electric power system, the Nanjing Automation Institute of the Ministry of Electric Power established a fiber optic communications staff at the end of 1977 and began to study the application of fiber optics in electric power systems. In November, 1978, the laboratory used a 20-meter optical fiber to transmit television images. In 1979, an optical terminal was developed for the fiber optic communications test line from the Nanjing Power Supply Bureau to the Midtown Transformer Staton and the technical problems of optical fiber coupling was solved. On 1 October of the same year, a 500-meter optical fiber was used in the laboratory to transmit television images and PCM pulse coded messages. In December, the laboratory again used a 1.8-kilometer optical cable to transmit analog television images and telephone communications. In January of 1980 under the cooperation of he Nanjing Power Supply Bureau, the first fiber optic communications test line of the electric power system was established from the Nanjing Power Supply Bureau to the Midtown Transformer Station. It successfully transmitted dispatched telephone communications, telemechanic signals and television images.

This experimental line is 1.8 kilometers long, 600 meters of the line are supported on the same pole as a 10 kilovolt high voltage power line. The optical cable hangs on a fixed iron line and is strung along the iron line at varying distances in between with large gaps of 50 meters and small gaps of 30 meters. This is our nation's first suspended optical cable test line.

The Nanjing Power Supply Bureau was in charge of setting up this optical cable. Because the optical cable has fixed connections, therefore during installation, the positions of the fixed connections were determined first then the cable was installed from the center outward in two directions. To prevent too much pull on the optical cable, during installation, a guide pulley was hung on each pole and at corners. The weight of the optical cable was lighter than electrical cable, installation was convenient, and this optical cable was completely installed within one day.

The components used by this test line were all domestically produced. The optical cable was provided by the Shanghai Electrical Cable Institute and the Shanghai Xinhu Glass Plant. The emitting diode was provided by the Shanghai Metallurgical Institute of the Chinese Academy of Sciences and the 519 Plant of the Postal and Telecommunications Ministry. The PIN probe was provided by the 519 Plant of the Ministry of Posts and Telecommunications.

II. Major Performance Indicators

1. Transmission distance. A distance of 1.8 kilometers (consisting of two optical cables of 960 meters and 840 meters long connected by a fixed connection).

2. Optical cable. The optical cable has four core optical fibers, (multiple mode grdient type, diameter of 60/150 micrometers), one pair of power lines of 0.5 millimeter in diameter, one fortification core.

3. Optical cable loss

(1) The Shanghai Electrical Cable Institute measured the loss with a direct current lght signal through a bypass (stable condition) under a room temperature of +18° C, the values are listed in Table 1.

Table 1

光纤序号 1 / 光注入端 3 / 衰 2 耗	1	2	3	4
A—B	3.27	3.07	2.87	4.12
B—A	2.97	3.6	3.13	4.81

注：A—B端是指光从960米段光缆通向840米段光缆。
4 B—A端是指光从840米段光缆通向960米段光缆。

Key:
1. Number of optical fiber
2. Loss
3. Light signal input end
4. Note: A-B refers to the light signal entering the 960-meter segment and traveling towards the 840-meter segment.
   B-A refers to the light signal entering the 840-meter segment and traveling towards the 960-meter segment.

(2) The loss was used to test the line and then an LED light source was used to measure the loss without going through the bypass (unstable condition), the values are listed in Table 2.

Table 2

1 光纤序号	2 光注入端	3 直流光衰耗 （分贝/公里）	4 交流光衰耗 （分贝/公里）
1	A—B	8.33	4.44
2	B—A	8.33	4.44
3	A—B	5.27	4.22

5 注：4号光纤作为备用，没有测试。

Key:
1. Number of optical fiber
2. Light input end
3. Direct current light loss (decibel/kilometer)
4. Alternating current light loss (decibel/kilometer)
5. Note: No 4 optical fiber served as backup and was not tested.

4. Method of Regulation

Simulated signals were used directly for regulation.

5. Information Transmission

(1) A single channel black and white television image, frequency band width of 0 - 8 megahertz.

(2) Transmitting 250 baud telemechanically, there were remote test signals, remote communications signals and remote control signals.

(3) Transmitting carrier wave telephone communication, carrier wave frequency was 272 - 276 kilohertz and 352 - 356 kilohertz.

6. Optical terminal and electrical terminal interface

Input, output range: 1 $V_{\text{peak - peak}}$

Input, output impedance: 75 ohms (not balanced).

7. Optical output terminal

Light source: LED gallium arsenide diiscomer luminous diode.

Optical wavelength: 0.83 micrometers.

Method of connection with the optical cable: There is a movable connector and there is also a fixed connection.

The power of alternating light of the output (including optical fiber output) light power transmission of television image was 39.8 microwatts (-14 milliwatt decibel), the power of alternating light for telephone transmission was 0.933 microwatt (-30.3 milliwatt decibel).

8. Light input terminal

Probe: PIN silicon photoelectric diode, photoelectric conversion efficiency of 0.4 microampere/microwatt, lowest receiving electrical potential of -38 milliwatt decibel, response rate < 5 millimicroseconds.

Method of connection with the optical cable: Fixed connection.

Sensitivity of optical receiver: The power of alternating light for reception of television image was 0.31 microwatt (-35 milliwatt decibel), the power of alternating light for telemechanic reception of telephone communication was 0.11 microwatt (-39.23 milliwatt decibel).

9. Power source

Input voltage: -- 220 volts.

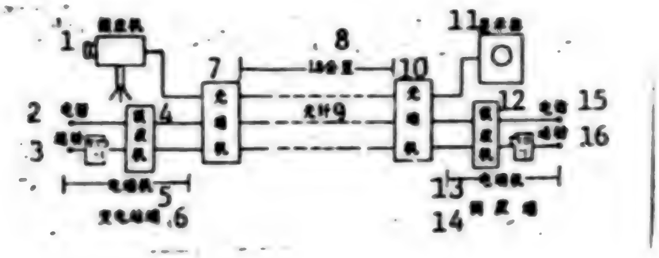
Output voltage: ±12 volts, ±6 volts.

Power loss: about 5 watts.

III. Telemechanic Principles of Transmitting Television Images and Telephone Communications

The transmission system (see diagram below) of this fiber optic communications test line uses the analog type. The analog electrical signal directly regulates the LED emitting diode for photoelectric conversion into light signals. The advantage of this type of transmission of light waves through the light guiding fiber is that the equipment is simple and reliable, it can be conveniently connected to the presently available communications equipment of the electric power system (the communications equipment used in our nation's electric power system is mostly analog).

Illustration of the fiber optic communications transmission system



Key:

1. Camera
2. Telephone
3. Telemechanic device
4. Carrier wave generator
5. Electrical terminal
6. Transformer station terminal
7. Optical terminal
8. 1.8 kilometers
9. Optical fiber
10. Optical terminal
11. Display screen
12. Carrier wave generator
13. Electrical terminal
14. Regulator terminal
15. Telephone
16. Telemechanic device

This test line transmits television images using a fixed focal distance and a single camera installed at the transformer station. A 19-inch color television is converted to serve as a display screen installed at the regulator terminal forming a monitoring system. It can monitor the operation of the high voltage switch the transformer and other equipment in the transformer station, and the personnel on duty in the main control room.

Transmission of telephone communications and telemechanic signals uses the ZZD-5 model electrically powered carrier wave generator, the TSY-2 model digital telemechanic device and the JYD-1 model sound frequency channel equipment connected all together forming a remote regulatory telephonic monitoring system with 20-point remote control, 28-point remote signaling, 28-point remote testing of signals.

In the entire fiber optic communications transmission system, the television image, the telephone and telemechanic transmission are transmitted via different optical fibers in a single optical cable. One optical fiber transmits the television image signals, the second optical fiber transmits telephone and telemechanic signals. In this way, one optical fiber corresponds to one light source and one optical probe, therefore on the optical terminal at the transformer station are installed two light emission dishes and one light receiving dish. One is used to send television images, the other is used to send telephone and telemechanic signals. On the regulator terminal's optical terminal is installed a light emission dish and two light receiving dishes. The emitting dish is used to transmit telephone and telemechanic signals. The ZDD-5 model electrically powered carrier wave generator can be used for repeated telemechanic transmission, the telephone and the telemechanic signals use the same optical fiber for transmission. Here, the ZDD-5 model electrically powered carrier wave generator must be changed to four high frequency lines to separate reception and transmission. Transmission to the opposite terminal is realized via the transmission brnach channel of the carrier wave generator through the alternator which is connected to the optical terminal's transmission dish by converting the electrical signal to a light signal and sending it into the optical fiber. The telephone and telemechanic light signals transmitted via the other optical fiber enter the light receiving dish of the optical terminal and the light signals of the telephone and telemechanic transmission are converted to electrical signals and sent to the signal receiving branch channel of the carrier wave generator, thus forming a channel for the transmission of telephone and telemechanic signals.

IV. Results of Establishing the Fiber Optic Communications Test Line

1. The fiber optic communications test line has transmitted television images and telephone and telemechanic information. The test results show that the television image is clear, the sound of telephone transmission is clear, and telemechanic signals are accurate and reliable. The dispatcher can view the main transformer in the Midtown transformer station directly on the television screen in the dispatcher room, the state of the switches and the personnel on duty. The results of using fiber optic communications to transmit regulatory commands and to carry out remote testing, remote signaling and remote control are good.

2. By testing the line, we proved that fiber optic communications can resist strong electromagnetic interference. This optical cable was set up on the same pole with a 10 kilovolt high voltage power line. The efficiency value of the power frequency sensitive voltage (cable - ground voltage) on the dynamic curve measured in the optical cable (ϕ 0.5 millimeter copper wire) was 16 volts while the fiber optic communications did not receive any interference.

3. Optical fibers are insulating materials, they are not affected by electromagnetic fields. Optical cables set up on the same pole with high voltage power lines can be directly installed into the dispatcher station and the transformer station or the carrier wave generator room of the power plant without the need for damping devices, coupled capacitors, connecting wave filters, and this saves investment and improves reliability of communications.

4. Through testing, we further grasped the variation of attenuation in the domestically produced optical equipment and optical cables. We discovered tha the output light power of the LED emitting diode dropped more, and using the same light power meter for measurements, we found that when the test line was first installed, the measured driving electrical current was 90 millamperes, the output light power was 49 microwatts, after half a year, the measured driving electrical current was 90 millamperes, the output light power was 37.5 microwatts. The attenuation in the optical cable of the test line varied minutely with changes in weather and temperature.

5. We also utilized the test line to perform the following tests:

(1) We used the error code rate tester to transmit AMI codes and HDB_3 codes of the PCM pulse code messages and measured an error code rate of less than 10^{-9}.

(2) We used two optical fibers connected together and successfully transmitted television images via 3.6 kilometers.

6. The test line shows the operation of the optical terminal is reliable, and operation is simple. At the time, the transformer station was undergoing expansion and construction was being carried out, there was a lot of dust, but the optical terminal could adapt to the relatively poor working environment, it was switched on and off frequently and it did not need readjustment and it could operate normally.

7. After completion of this fiber optic communications test line, many tentative ideas by communications workers of the electrical pwoer system have emerged: The use of fiber optic communications has a large capacity, the resistance to interference is strong, and installing optical cables on the same pole as power lines or on suspended ground power lines can solve the problem of transmitting telemechanic information from the transformer station and the communications center station (switchboard) and dispatching telephone calls into urban areas at once.

9296
CSO: 4008/416

RADIO HAVANA CUBA'S 20TH ANNIVERSARY MARKED

Aims, Objectives Reported

Havana CUBA INTERNACIONAL in Spanish Jun 81 pp 24-25, 27-29

[Article by Agenor Marti: "Radio Havana Cuba, A Window On the World"]

[Text] A little over 7 years ago foreign broadcast station Radio Havana Cuba, which has just marked its 20th anniversary, received a letter from Córdoba, Argentina. The writer said that "during the day I get my fill of capitalist propaganda while I ride on the bus, walk in the streets, read magazines, watch television or hear the radio, but at night I detoxicate myself by listening to Radio Havana Cuba." Further on in his letter he adds, "You are performing what is indeed a revolutionary task by spreading far and wide the truth regarding Cuba's revolution."

The writer's statement was accurate, and letters such as his come in by the thousands. They are received from all over the world. An overwhelming majority of them have something in common: they point out the highly important role performed by this radio station in revealing the truth and in exbounding ideological thought.

Radio Havana Cuba, which was officially established on 1 May 1961, has occupied a paramount place in reporting the real facts pertaining to international politics, history, economics, social affairs and cultural matters, and particularly those pertaining to Cuba's new realities and the situation in the Latin American countries.

That is why its popularity, as evidenced by the number of persons who listen, is constantly increasing and why the men and women who listen to its programs daily as a means of learning the truth regarding the achievements of Cuba's revolution and to gain knowledge of the history, culture and life of other nations, are counted by millions. Radio Havana Cuba does afford a window on the world, but, in doing so, enables one to view the world under a new light that makes it possible for the ideas and hopes of socialism to become part and parcel of the awareness and hopes of peoples who traditionally have been enslaved, such as those of Latin America.

The Mission of Informing

Radio Havana Cuba's work has been the object of public recognition extended even by the enemies of our revolution. From the outset, this international broadcasting station became a target of countless attacks and calumnies by imperialists and their puppet governments. Because it is a vehicle that makes it possible for ideas and information to reach all nations and also because it is a medium through which the truth regarding Cuba's revolution is made known and enables socialist thinking be brought to all oppressed peoples, it very soon was a target of attacks by the international bourgeois and imperialist press.

One year after Radio Havana Cuba was created, dictator Miguel Ydigoras told the ASSOCIATED PRESS that "Radio Havana Cuba is constantly calling for revolution against Guatemala." In September of that same year (1962)--barely a few weeks before the October crisis--UNITED PRESS INTERNATIONAL reported that "official U.S. circles learned that a way is being sought to offset the propaganda that stems daily from Radio Havana whereby the peoples of Latin America are encouraged to overthrow their governments and rid themselves of Yankee imperialism's yoke."

Precisely because it serves as an ideological weapon wielded by Cuba's revolution and because it urges oppressed peoples to shake off Yankee rule, defamatory campaigns were immediately launched against Radio Havana Cuba. However, also for that very reason, its prestige and popularity increased. The letters from its listeners prove this. Luis Fernández Sánchez, of Guayaquil, Ecuador, wrote: "A few days ago I listened to a wonderful speech made by Commander Fidel Castro on the occasion of the graduation of some dentists, and in it Cuba's Prime Minister explained what education means for Cuba. I congratulate you and ask you to continue beaming that type of program which makes the listeners realize the need for real social change in their countries."

And this happens to be precisely what the United States always tried to forestall--that men such as those we have mentioned (and they are infinite in number) be able to count on finding an unfailing way to a just life devoid of fears.

In October 1964 the MIAMI HERALD published a commentary which, with unwonted objectivity, stressed that "for most Haitians the only voice that clearly speaks up against the dictatorship that is perpetuating their misery comes from Havana. They gather nightly around whatever radio receiver is available--and many of them are small, cheap transistor radios--to listen to some fellow citizen who gives them sympathy in the face of the calvary they are suffering (...). The Haitian news blackout is complete save for a single gap--the communist radio broadcasts from Havana to which the population listens eagerly."

In 1969 the MIAMI HERALD published an item which stated that "The Rockefeller mission learned that throughout Central America and the Caribbean, Cuban radio propaganda is better than that broadcast by the Voice of America during peak hours." In his report to Nixon, Rockefeller said, "The Voice of America, which the United States broadcasts, should make its programs more attractive than those of Radio Havana," and added that "an earnest effort should be made to enable the Voice of America to at least compete with Radio Havana Cuba in Central America and the Caribbean, including improvement of its programs and transmission over regular broadcast waves."

It thus turns out that from the outset Radio Havana Cuba began to fulfill its essential broadcasting function. On the occasion of the station's 15th anniversary, Isidoro Malmierca, a member of the Cuban Communist Party Central Committee, stated: that "Radio Havana Cuba's programs should endeavor not only to reply to the attacks made by the imperialists but, above all, to present our thinking and our stance, doing so in a creative and straightforward manner that will be understandable for the great mass of workers whom we reach." That man, who is now Cuba's Minister of Foreign Relations, emphasized on that occasion that "We are not and cannot be on the defensive but must, instead, take the offensive."

Radio Havana Cuba has in fact taken the offensive, as its programs also show. That station broadcasts each day 40 news programs and bulletins in Spanish, 16 in English, 11 in French, 8 in Portuguese, 4 in Creole, 4 in Quechua, 2 in Guarani, and 2 in Arabic, which makes a total of 87 news slots per day. Moreover, there are ach day 16 political and sports broadcasts in those 8 languages. The rest of the programs consist of cultural features, correspondence with listeners, and talks on ideological, philatelic and musical topics. The total number of programs on all those subjects braodcast by it each day comes to 137. Radio Havana Cuba beams daily a total of 66 hours of programs in the above-mentioned eight languages.

Some programs attain a tremendous following. One such is "Voces de la Revolución," which transmits segments of speeches by Commander in Chief Fidel Castro and other of the revolution's leaders. It is one of the programs with the most listeners. Then, too, there are "Frente a la agresión, Cuba responde," whose purpose is to refute the calumnies and intrigues launched against Cuba, and there are also, of course, the news programs and bulletins. Other programs that follow these in terms of the size of their audience are "Formalmente informal," "Nuestra América," "Cuba en los deportes," "Entrevistas," "Socialismo," "El Nuevo Mundo," "Filatelia," and other literary or musical nature ones. The programs are varied and entertaining and the news reports and bulletins reflect current international developments.

The station has been growing since May 1961 when it started to increase its transmitting power and thus, the scope of the geographical area it reaches. At the outset the programs were beamed only in Spanish to Latin America, but shortly thereafter broadcasts in other languages were undertaken, such as those in English for the United States, Canada and countries in the Caribbean, and those in Portuguese for Brazil. Later came the broadcasts in Guarani, beamed to Paraguay and Argentina, and in Quechua for Bolivia, Ecuador and Peru, as well as those in Creole for Haiti. Almost simultaneously, other transmitting facilities were given over to programs for Europe and Africa, using Spanish, English, French, Portuguese and Arabic. This means that, as is obvious, the message of Cuba's revolution is heard daily in much of the world.

Personal Communications

However, Radio Havana Cuba's activities are not limited to radio broadcasting. It has a department created especially to reply to every letter received. Incidentally, they number in the thousands each month. A team of editors who hold degrees in philology, history, journalism, and Hispanic languages, replies to the expressions of concern, questions and requests that the station receives from all over the world. It should be pointed out that the enormous amount of correspondence has been received from more than 130 countries located in all five continents. Needless to say, many of those letters have entailed risking persecution, imprisonment and even death, since people in such countries as Paraguay, Bolivia and El Salvador write in to express their support of the Cuban revolution. Many listeners request information regarding certain features of Cuba's revolutionary struggle or regarding achievements which it has accomplished in recent years. Radio Havana Cuba answers them giving full details and sends them brochures and books which often have to travel a long distance before finally getting into the hands of the requester.

In addition, Radio Havana Cuba holds a yearly contest in which all its listeners can take part. The prize consists of five 2-week trips to Cuba, with all expenses paid.

More than 17,500 radio listeners have participated in the 16 contests which have been held from 1965 to 1980. Of them, 105 from 30 countries have won and visited Cuba.

So it is that the station's activities are not merely those of braodcasting but also include personal contacts with each listener which may be emotional and intimate. The most important thing about this is that it means communicating with the huge mass of men and women who see in Cuba's revolution and in the ideas of socialism--both of which they understand more fully because of Radio Havana Cuba's efforts--hopes for an improved and more just world.

To contribute to enlightening the conscience of those hundreds of millions of persons is and will continue to be the abiding task of Radio Havana Cuba.

PHOTO CAPTIONS

1. p 24. Baldomero Alvarez Rios has been a journalist since 1938 and is the founder of PRENSA LATINA and of Radio Havana Cuba, of which he is deputy general manager, a position he holds while being also deputy secretary general of the Union of Cuban Journalists (UPEC) and secretary general of the Latin American Journalists Federation (FELAP).

2. p 27. José Prado has been head of the editorial and information offices of the station and is now a deputy general manager. He completed his higher educational studies in journalism in 1954 but began to exercise that profession in 1959. He is a founder of PRENSA LATINA.

3. p 27. Orlando Castellanos, a journalist and radio commentator. A founder of Radio Havana Cuba, he has had long experience in broadcasting. He is the author of several highly popular programs, among them "Formalmente informal."

4. p 29. Miguel Angel de la Guardia, a bilingual journalist, has alternated over a period of many years his work in that capacity with that of being an announcer on several programs in English. He has also stood out as a commentator. He currently writes the program "PO Box 7026" for the broadcasts that are beamed in English. In 1981, he has received the National Vanguard of the Union of Culture award.

5. p 29. Angel Hernández, program manager and announcer. "Frente a la agresión, Cuba responde" is among the most popular programs entrusted to him. He is one of the station's founders.

6. p 29. Manolo Ortega. An announcer on various of the station's news and information programs, he is probably Cuba's most popular announcer.

Alfredo Viñas' Comments

Havana CUBA INTERNACIONAL in Spanish Jun 81 p 26

[Interview with Alfredo Viñas, director general of Radio Havana Cuba; date and place not given]

[Text] Alfredo Viñas, founder and director general of Radio Havana Cuba, has worked as a journalist for 26 years. He also is the founder of PRENSA LATINA and has been a deputy director of the newspaper GRANMA.

[Question] What was the purpose in founding Radio Havana Cuba?

[Answer] Nothing frightens the forces of reaction, the exploiters and the other enemies of the people more than the emergence of a real popular revolution which affirms from its outset, as ours did, that it will root out the evils keeping our country from free and sovereign development as an independent nation and that, moreover, it will go to any extreme to establish true social justice. That is why when the heroic guerrilla movement began to inflict sizeable defeats on the army that the imperialists had created and organized as a means of protecting their interests in Cuba, the information and propaganda machine of the reactionaries was immediately set in motion to spread all kinds of lies, calumnies and distortions regarding the process that would soon bring about our land's real emancipation.

Examples of the defamatory campaign waged were the stories regarding the composition of the expeditionary forces that embarked on the "Granma," who were described by more than a few of the reactionary press organs ad adventurers and mercenary fighters who were bound to fail, the repeated lies about Cuba's revolutionary leaders having been killed or taken prisoner, and, in general, the veil of silence that was used to conceal how the struggle in Cuba's mountains was really coming along. When Radio Rebelde started to broadcast daily from those very mountains the truth regarding the course of the battles and to reaffirm the goals sought by the Cuban people, dangerous cracks began to appear in that wall of silence which the imperialist news monopolies had raised against the Cuban people who had revolted. When the revolution again succeeded and it became obvious that, for the first time in their history, the people of Cuba had achieved political power and were exercising it forefully to defend their legitimate interests, a massive defamatory offensive was started against our country that would make it easier for the then all-powerful imperialist leader to attempt a new armed intervention in Cuba. The quick response given by our revolution's leaders--which took the form of what came to be known as "Operation Truth" and brought together in Havana hundreds of newsmen among whom were many sent by press organs that were progressive--inflicted a costly defeat upon the persons who were counting on crushing the Cuban revolution easily. Fidel's actions in that unforgettable episode caused the true facts regarding not only Cuba but also regarding all of Latin America and other oppressed peoples, to resound as the cracking of a whip against the face of U.S. imperialism.

But the propagandistic maneuvers against the Cuban revolution did not stop there. Using their immense material resources, the imperialists imposed upon the Cuban people the economic blockade which aimed to weaken them into inanition, and they reinforced their blockade with a news and cultural one that was as fully a criminal deed as the other one. They sought to isolate Cuba and render invisible the example it was setting, while they went ahead at full speed reinforcing their negative propaganda through radio broadcasts and an avalanche of publications they have at their disposal on this and other continents.

This further propaganda offensive was solely for the purpose of bringing about a favorable psychological atmosphere in which to launch the Playa Giron military operation against Cuba. It was precisely at that moment that Cuba's first international station beamed its initial broadcast, doing so on a trial basis and under the name of Onda Corta Experimental.

The station's first programs were broadcast to Central America by means of a small transmitter. They were only in Spanish and were not sent out any great distance, but they were already bearing the message of encouragement from a country which had been the first one to win real independence. The broadcast station, which later was named Radio Havana Cuba, was in operation when the mercenaries landed at Playa Giron, and it denounced to the world the cowardly aggression the imperialists had perpetrated; it reported the true manner in which the military action took place and was able to proclaim that the invasion had been crushed in less than 72 hours.

From that instant on, the vibrant strains of the 26 July March that identifies our broadcasts has announced to millions of listeners Cuba's message of revolution and solidarity.

Radio Havana Cuba proved itself a powerful instrument of political and ideological warfare with which to face up to the antirevolutionary campaigns, making it possible to let the world know of the success achieved by our revolution and to provide encouragement and support to those who fight in other lands to thwart colonialism, neocolonialism and imperialism. This was the purpose of founding Radio Havana Cuba.

The U.S. imperialists are now posing before the world even greater threats against the peace and security of nations. They unleash their lightning and thunder against the peoples who want to shake off centuries of misery and backwardness, and also against the socialist countries, all of whom need peace to build their new world. In this attempt the imperialists have discarded their human rights mask and seek to apply trigger law as a means of safeguarding their neocolonial preserves in Latin America and the rest of the world.

Having shed their human rights campaign, the imperialists have now launched an even more hypocritical campaign. The worst territories in history are feigning to be standard bearers in the struggle against international terrorism, unmindful of the fact that people can never forget the crimes committed by the CIA, which is an organization that has long used poisons, lead and dynamite in its sordid efforts in behalf of imperialistic interests.

Given that grave situation, Radio Havana Cuba has denounced in no uncertain terms the dangerous turn of imperialist policy and has added its voice to the growing wave of indignation and protest--a wave in which even the progressive elements among the people of the United States take part--against those new attempts at pushing the world to the brink of war.

Radio Havana Cuba reveals also the world's solidarity with the working people of the United States, who will have to bear upon their shoulders the weight of the economic restrictions that will be brought about by the armaments race and the policy of making it easier for the monopolies to accomplish their predatory aims.

[Question] What tasks lie ahead from here on?

[Answer] Radio Havana Cuba has made tireless efforts in these 20 years to secure the best possible quality. We intend to continue those efforts without any letup so as to fulfill fittingly the missions and tasks assigned to us by our revolutionary party and government.

As for the programs themselves, we are currently studying several projects covering new areas of general interest aimed at a better and wider contact with the international radio public.

In line with the responsible and demanding efforts they bring to bear in all that they have to do, Radio Havana Cuba's workers will continue to be, as in the past, the surest guarantee that this voice of Cuba's revolution will not flinch from accomplishing its role in the manner required by the great undertaking of which it is a reflection.

PHOTO CAPTION

p 26. Alfredo Viñas, director general of Radio Havana Cuba

Opinions, Music, Programs

Havana CUBA INTERNACIONAL in Spanish Jun 81 p 29

[Text] Opinions on Radio Havana Cuba

Statement by Salvador Cayetano Carpio, a member of the Joint Revolutionary Directorate of the Farabundo Marti National Liberation Front of El Salvador:

Radio Havana Cuba contains the message of hope for a better and secure future for all oppressed peoples. I have been really thrilled by the fact that even in the farthest reaches of my country people wait to hear on their small radios, during dawn hours, the message from Radio Havana.

Statement by Rafael Cancel Miranda, a Puerto Rican patriot:

During the 25 years in which I was held prisoner, Radio Havana Cuba was one of the things that helped me the most to keep in touch with Latin American reality, including that of Puerto Rico, as I heard via Radio Havana Cuba more things on Puerto Rico than could be heard on U.S. radio. In that sense, I am thankful to Radio Havana Cuba for having helped me leave prison knowing, to a greater or lesser degree, certain true facts of which I would have never had knowledge were it not for having listened to Radio Havana.

Statement by Carlos Mejia Godoy, a Nicaraguan musical composer and performer:

During the dark, opprobious years of the dictatorship, this radio station provided us with encouragement to carry on our work and spurred us on to improve that work, making us into a single whole and joining us deeply to Latin America's struggle.

Music From All Over the World

One of the successful accomplishments of this radio station is its musical broadcasts because Radio Havana Cuba has a very considerable amount of music which includes most of the Cuban music recorded both before and after 1959, besides a valuable collection--that is systematically added to--of the best and most current Latin American compositions, as well as the most important international ones.

Insofar as Cuban music alone is concerned, for instance, Radio Havana Cuba keeps and broadcasts all the songs of the Matamoros Trio, Sindo Garay and Rita Montaner, as well as the compositions by Amadeo Roldán, Alejandro Garcia Caturla and more recently those played by the Aragón Orchestra, Benny Moré and Leo Brouwer, to mention just a few composers and interpreters.

The number of Latin American pieces, which are also part of Radio Havana Cuba's collection of phonograph recordings, is growing thanks to the fact that the listeners on our continent send in recordings from their countries. Radio Havana Cuba's valuable collection enables its listeners to enjoy the most current music as well as the traditional compositions of all lands.

Radio Havana Cuba at Sea

Among Radio Havana Cuba's varied programs, those which it beams to Cubans who work at sea are deserving of special mention. Those programs are presented in the slot "Cuba por los mares del mundo," which is intended for Cuban merchant marine and fishermen operating on the high seas or on the continental shelf. Consisting of music, general comments and interviews with families of seamen and fishermen, "Cuba por los mares del mundo" has been gaining in prestige and popularity. This has been so much so, that Radio Havana Cuba receives a great number of letters and cablegrams referring to that program. The seamen and fishermen themselves often write in to request whatever subjects and musical pieces they wish to hear. Of course, the station heeds their requests.

9870
CSO: 5500/2271

BRIEFS

SECOND TV CHANNEL--The Jamaica Broadcasting Corporation is to introduce a second television programme channel which will utilize mainly local art. Prime Minister Edward Seaga, speaking yesterday at the opening of the Festival Fine Arts Exhibition at the Upstairs/Downstairs Gallery, Harbour Street, Kingston, said that the new channel was part of a new communications media programme being planned by the Government. JBC-television currently uses one programme channel although these programmes are carried by more than one channel on the television sets. Mr. Seaga said that although he was not in a position to give details of the communications media programme, he could say that several new experiences would be introduced into the public media using a great deal of local talent. [Excerpt] [Kingston THE DAILY GLEANER in English 27 Jul 81 p 1]

CSO: 5500/7543

FUTURE PLANS FOR NATIONAL POSTS AND COMMUNICATIONS OFFICE

Brazzaville MWETI in French 7 Jul 81 pp 3, 7

[Article by Mayouma Mbaloula]

[Excerpts] The future plan will give prominence to the telecommunications sector. On a national level, it is already known that the government is preparing to improve the telephone network and to provide the whole country with an efficient telephone system. On an international level, the Congolese telecommunications service is being overhauled to start operating with a new Intelsat V. This work started on 17 June and was completed on Friday, 3 July. The old Intelsat IV could no longer meet the customers' growing demands. The new satellite--which hovers at an altitutde of 36 kms off the coast between Cameroon and Nigeria--offers many possibilities.

The National Posts and Telecommunications Office [ONPT] was created by Law No 9/64 of 25 June 1964 after the former Equatorial Posts and Telecommunications Office was dismantled, and has a monopoly over the management of posts and telecommunications in the People's Republic of the Congo.

Traffic to foreign countries is carried out by radio link (Brazzaville-Kinshasa), by satellite (Moungouni land station) and by decametric waves.

Short and Medium Term Objectives

The changing patterns of the Congolese communications network are aimed at satisfying ever more the needs of customers who are becoming increasingly demanding and this will be achieved with an increase of the total number of telephone exchanges, of national and international long-distance circuits and by ensuring rapid transmission, good quality of reproduction and diversification of means of transmission.

Despite the efforts made by the ONPT in recent years, most of the domestic telecommunications network remains to be modernized or even built.

During the coming years, the ONPT will acquire:

--an international telephone exchange (CIT), for which equipment is being built, that will introduce direct dialling for a number of international telephone circuits.

--an international telegraph exchange (CTI), for which invitation to tenders has been issued, due to play a similar role to that of the international telephone exchange.

--a Brazzaville-Pointe Noire radio link of large capacity to carry television and sound programs to the soutwest of the country.

The expansion of the nothern radio link is under study and will provide television and telephone serves to Djambala, Lekana, Oyo, Abala, Boundji, Gamboma, Makoua and Mossaka.

Future Trends

1) The chief objectives in the sphere of telecommunications for this decade and in the future ones are, among others, to make the public facilities serving the national territory increasingly competitive, to diversify the means of transmissions so as to make the system more foolproof and make the telephone available to everybody.

2) The ONPT still needs to solve many problems in the sphere of telecommunications. Despite all the efforts made by the ONPT, its means remain very limited considering all that needs to be done. To coordinate these tasks, the office requires a development plan for the telecommunications sector to establish an order of priorities in the steps which must be taken in the various spheres all over the country and to decide how and when these steps should be taken. While the usefulness of planning no longer needs to be demonstrated, it has become an essential tool for the management of any enterprise which wants to make progress and be efficient.

The absence of planning inevitably leads to improvisation which often results in a dead end and in a waste of means.

3) To be up-to-date with the technological and scientific advances in the field of telecommunications, the ONPT will start introducing into the Congolose vocabulary words such as "telematics" and "new services" and one will speak about the "telematisation" of society.

Telematics, born when telecommunications and data processing were brought together, has introduced a complete change in the telephone system and produced many means of communication.

It not only offers subscribers a touchtone telephone and a television receiver of new services which does not require a computer, but, even better, it brings a computer within the reach of the subscribers.

The new services planned are teleprinting, teleconference, video text, telealarm, teletex, telefax and so on. All of them allow data to circulate faster than people and allow people to be in contact with one another in all kinds of ways and from a distance, and they save people from having to make long, tiring and costly trips.

The future prospects of the Congolese economy make it impossible to disregard telematics because many of the new services it offers will help to simplify our daily life in this modern world.

The use of more sophisticated services offered by telematics requires, among other things, that the telephone be available to all and that the network goes to a dialing system.

8796
CSO: 5500/5057

TELECOMMUNICATIONS PROJECTS REVIEWED

Backlogged Demand for Telephones

Lagos BUSINESS TIMES in English 3 Aug 81 p 1

[Article by Stanley Egbochuku]

[Text]

THE Post and Telecommunications (P&T) can no longer give new telephone lines to any interested person who lives at Ikoyi, Ebute Metta, Ikeja, Amuwo Odofin, Lagos Island and some parts of Surulere in Lagos State.

The reason is that the exchange capacities in those areas have been stretched to the maximum.

The Permanent Secretary, Federal Ministry of Communication, Mr. J.E.K. Oyegun, explained that Ikoyi and Ikeja had 7,000 new lines each, all of which have been taken up. Ebute Metta has 4,000 lines and Lagos Central 5,000. He said that the P&T would be allocating 5,000 additional lines to Lagos Central. It means that new subscribers would be added on in the area as soon as the project is completed.

There is hope also for those who live around Amuwo Odofin. Mr. Oyegun said that the proper exchange for the area was being built and could take additional 1,000 subscribers. A proper exchange is also being built in Isolo. It will be completed early in 1983 and would provide additional 5,000 lines.

Victoria Island has additional 10,000 lines and over 5,000 have now been taken. Victoria Island, therefore, is the only area where the P&T can easily put on new subscribers.

There is a very high demand for telephone lines all over the country. The P&T cannot really estimate the volume of the demand and so cannot relate the level of supply with the demand.

It cannot equally promise an immediate improvement in the supply situation. 'Everything depends on funds'; said Mr. Oyegun.

The Ministry of Communication has still not recovered from its hopeless financial position which forced it in 1978 to limit its efforts only to consumating the projects for which contracts have been signed. It has had to abandon the Telephone Exchange Contingency Plan launched in 1975 which provided for phases 1, 2A, 2B and 2C of which the implementation would have resulted in the provision of 480,144 telephone lines throughout the country.

The Third National Development Plan had envisaged the possible expansion to 750,000 telephone lines by 1980. The P&T has only been able to put on between 40-50,000 subscribers since 1978.

The existing step-by-step, cross-bar 5,005 and NECO exchanges can no longer be expanded. Their expansion would have provided an additional 31,300 lines. The P&T plans to convert them to 'talk the same language' with the R2 being installed.

There was a maintenance contract signed with Plessey Nigeria Limited which provided for the refurbishing of Iporin 'A' and Ikeja 'A' crossbar 5,005 exchanges. The General Electric Company's contract for the extension of eight step-by-step exchanges has since been completed.

One major development which satisfies Mr. Oyegun is the completion of the Coaxial Cable System. It is one of the systems that would diversify the transmission systems and provide alternative route for transmission of messages to the existing terrestrial micro system.

The implication of the new system to the National Telecommunication programme is that the Lagos to Kaduna stretch will become more reliable and it could be possible to carry on 960 simultaneous - conversations as against the present 12 to 24. Our existing single channel system provides that once there is a fault, it will affect the whole lines.

The most common problem is associated with power supplies as the P&T in most cases, generates its own power. The cost of electricity generation is so high that chances of profitability is remote.

There would be a total of 223 telephone exchanges including mobile exchanges in due course.

Telecommunications Projects, Contractors

Lagos BUSINESS TIMES in English _ Aug 81 p 32

[Article by Stanley Egbochukwu]

[Text]

THE Federal Ministry of Communications has so far paid out a total of ₦1.74 million for over 100 major telecommunication projects currently being extended throughout the country. This amount represents 60 per cent of the present values of the various contracts.

For instance, ₦4.98 million has been paid out to ITT for the ₦37.68 million project which provides for the design, supply, installation and testing for the Ibadan Central, Ado Ekiti and Akure exchange areas.

Similarly, Siemens has only received ₦1.88 million out of the ₦16.73 million contract for the provision of 7,350 additional lines to the National Telex/Gentex Network.

The project has actually not started but the programme of action is being drawn up and the shipment of material awaiting the opening of Form M.

A total of ₦200.4 million has been paid out also to the ITT COSMAC/L.M. Ericsson for the installation of switching equipments in the 40 locations designed to be the infrastructural exchanges which are advanced for early implementation of the Telecommunications Third National Development Plan (1975/80).

In this contract, the ITT has been manning Lagos, Ibadan, Benin, Kaduna and Bauchi zones, while COSMAC/L.M. Ericsson cover exchanges in Enugu zones.

Marubeni won the contract for the provision of Mobil Exchanges in the country in March 1975. The present value of the contract is ₦11.18 million and about ₦10.3 million has been expended on the project.

The contractor has delivered all the 29 units, nine of which have been commissioned and two more accepted. One exchange was commissioned in Akure to fill the time until the ITT exchange is ready for cutover.

The major problem in this project is that neither transmission links nor external line plants have been installed in the locations where the exchanges were originally intended for.

Six contractors were involved in the contracts for cable expansion and replacement in the Lagos area which was awarded between May, 1975 and September, 1976.

They were · Lagos Solomon and Solomon, Dave Engineering, Graham Bell, TCL and NOSSEC/FUJIKURA.

The present value of the contracts adds up to ₦48.38 million. Only ₦41.32 million has been spent so far. Again, about ₦41.3 million has so far been spent on the project for the supply and installation of primary, secondary and junction cables in Lagos area.

This project was shared amongst six contractors namely: Fujikura, Graham Bell, NOSSEC, SIEMENS, Kabel Metal and Protec Sobrotel.

Siemens also won a contract for the provision of telephone exchange at Isolo and the extension of Lagos 'D' exchange.

Only ₦2.5 million has been spent on the project which is currently valued at ₦19.51 million.

The P&T owes 13 contractors a total of ₦16.34 million being the total payments still outstanding for the completed projects. The sum is the difference between the total amount spent on the various completed projects and the present value.

The present value of the contracts total ₦97.87 million. The amount already spent adds up to ₦81.53 million.

Some of the projects in this category are the building of an exchange for Victoria Island, the installation of an external line plant in Ikeja airport, the extension of eight step-by-step exchanges and consultancy services.

Six projects have been completed. The total amount spent was ₦25.7 million. The projects include the supply of coin telephone instrument and accessories, rehabilitation of external line plant and supply of PABX. There is also the extension of Ikeja and Mainland exchanges, supply of telecommunication material and supply of copper wire.

Out of the 37 locations assigned to the ITT since March 1975 when the contract was awarded, 24 have been commissioned and the rest held up because of the delays caused by the building projects and lack of NEPA supplies at the sites.

The locations already commissioned include Lagos-Apapa, Lagos Central, Ebute-Metta, Ikeja, Ikoyi and Iponri. Others are Abeokuta, Ado Ekiti, Ibadan, Ijebu Ode, Ilaro, Ogbomosho, Okitipupa, Ondo, Owo Shagamu, Agbor, Benin, Lokoja, Sapele and Warri.

Kaduna and Jos locations have also been commissioned.

The seven exchanges involved in the 12 locations assigned to COSMAC have been commissioned. The contractor is currently working on the switching equipment installation in Aba and Calabar.

When that is completed, the company may be paid an additional ₦3.3 million having already received ₦13.04 million.

This contract was supposed to have been completed in March 1977. L. M. Ericsson is equally behind schedule in the completion of its two related projects valued at ₦20.19 million.

In the New Enugu Local Telephone Exchange, the acceptance testing has since been completed and the interface equipment installation to Plessey 5006 is 56 per cent complete.

CSO: 5500/5064

FURTHER DETAILS OF BLACK TV PROGRAMMING GIVEN

Johannesburg THE CITIZEN in English 14 Aug 81 p 17

[Text]

THE countdown to the launching in 1982 of TV2 and TV3 has started.

It became apparent yesterday at a Press preview of Black television programmes that TV2 and TV3 will not be supplementary, nor inferior to TV1.

Both services, said the SABC, were intended to be fully fledged to serve and entertain definite groups of people.

Independent

From the outset the new television service will be beamed to about four million potential viewers on the Reef, in Pretoria, Vereeniging, the Durban area and Port Elizabeth. It will be extended by the end of 1982 to reach approximately seven-million people.

TV2 (which will serve the Nguni people — Zulu and Xhosa) and TV3 (the Sotho service) will, as soon as manpower and finance permit, be separated to form independent channels.

Programmes will alternate. TV2 and TV3 will initially each have 90 minutes of viewing on weekdays and 180 minutes during weekends. The total viewing time for the two services will be 27 hours a week. Both services will be commercial from the outset, with an advertising content of eight percent.

Large Staff

About 400 people have been appointed for TV2 and TV3, but they will eventually need 1 000 employees.

The launching of the new service involves more than R100-million. Of this R70-million will go for capital expenditure, and about R35-million as establishment cost.

Broadcasting Centre in Commissioner Street, Johannesburg, will be the headquarters for TV2 and TV3. The first programme personnel are expected to move into their offices from mid-October this year, while the first production studio at Broadcasting Centre will be in operation from the end of October.

Some programme personnel have already moved into Broadcasting Centre in Weavind Park, Pretoria, and their first production studio will be ready by the end of this year. Dubbing facilities will be ready towards the end of 1982.

Four camera outside broadcasting units have been dispatched to Durban and Port Elizabeth, and Black personnel are undergoing training to man these vehicles.

Research on the introduction of TV2 and TV3 has been done with the utmost care and they will deliver a quality service.

CSO: 5500/5065

BRIEFS

DAR ES SALAAM-MONTREAL PHONE LINK--A telephone route between Dar es Salaam and Montreal, Canada, with three channels, was successfully commissioned at 1245 Greenwich Mean Time (GMT) on July 21, this year, the Tanzania Posts and Telecommunications Corporation (TPTC) announced yesterday. A statement issued in Dar es Salaam said that the circuits are routed through Nairobi on a "hardpatched" basis. Arrangements are also underway to open a fourth channel in the very near future, the statement added. "This is expected to provide greater and efficient telephone service to our customers to and from the northern American subcontinent," the statement said. [Excerpt] [Dar es Salaam DAILY NEWS in English 30 Jul 81 p 3]

CSO: 5500/5064

NEW CONSTITUTIONAL AMENDMENT PLANNED ON RADIO, TV

Zurich NEUE ZUERCHER ZEITUNG in German 19/20 Jul 81 pp 15,16

[Article by U.M.: "Foundation for a Radio Law in Switzerland"]

[Text] Bern, 17 Jul--In a new constitutional amendment 55^{bis}, which is succinctly formulated in general terms, the Federal Government intends to provide itself with the necessary legal base on which to establish a Swiss law concerning radio. Basically the proposal to amend the constitution clarifies legislation affecting radio and television as well as other forms of public communications-based dissemination of programs and information which are in the interest of the Federal Government. Radio and television are supposed to contribute to cultural development, to the formation of opinions and to entertainment, consider the special characteristics of the country and, in an appropriate manner, provide expression for the large variety of events and views. The independence of radio and television and also the freedom to develop programs are guaranteed within the framework of these provisions. The announcement by the Federal Council, which was made public on Friday, for the attention of the Swiss councils, provides a detailed explanation and justification of the wording which was publicized in the beginning of June and the material provisions of the proposed addition to the constitution; moreover, it describes in great detail the development and present situation in the sector of electronic media. An abundance of detailed information and fairly theoretical thought associations does, of course, come at the expense of a clearly formulated government intent.

To Date Only Technical Authority

According to the majority interpretation of the law to date the Federal Government, on the basis of Article 36, Section 1 of the constitution, has the authority to control the technical interests of radio and television, and in the opinion of the Federal Council this communications sovereignty would even extend to activities in space in case anyone wanted to put a satellite radio into operation. On the basis of the telegraph and telephone law, the Federal Government can also involve third parties in its sovereignty and issue licenses. But there are no explicit constitutional and legal provisions which, from the point of view of the state and media policy, specify the conditions for issuing licenses. Thus, this concerns regulations about programming, financing, the organization of the broadcasters and the position of the users. Uncertainty and insecurity also mark the complex relationship between state and broadcasters; problems occur primarily with respect to control. The legal position gives the authorities a certain amount of discretion which is subject to only a few guidelines and restrictions.

New Transmitters--New Media

It is quite difficult to make this situation compatible with the principle of legality. In addition, there is the fact that radio and television are today unmistakably of great importance for the state, society and the individual. In the past 25 years the number of radio receiving licenses increased from 1.23 to 2.24 million, and the number of television receiving licenses went from 10,507 to 1.97 million. The Swiss Radio and Television Association (SRG)--until today the only institution which is permitted to transmit radio and TV programs throughout Switzerland on a continuous basis--in the past 10 years has developed from a medium-sized operation with approximately 1,000 staff workers into a larger enterprise with about 3,300 employees. In addition to the 5 medium-wave transmitters, today there are also available 202 VHF transmitters at 97 locations. New forms of telecommunication, such as cable and satellite TV, display text and two-way communication likewise raise the question of constitutional inclusion.

Comprehensive Scope of Application

The proposed constitutional amendment should give the Federal Government the authority to control the problems which arise in connection with radio and television and to establish binding regulations, for example, on defining the concept, the right of access to the programs, freedom in respect to radio and television, the rights of the listeners and viewers, the rights and duties of those creating the programs, and the financing and organization of the broadcasters. In this respect it distinguishes between radio and television on the one hand and "other forms of communications-based dissemination" on the other hand. The Federal Council does not thus intend to explicitly control via the constitution everything that uses electronic transmission, but rather to guarantee itself the authority to be in a position to deal with future developments in this sector as needed with legislation.

As far as the performances of the media and the manner in which they accomplish them are concerned, a democratic state cannot restrict this spectrum and cannot attempt to substantially control the political process. Nonetheless, the constitutional amendment is supposed to charge radio and television with accomplishing specific achievements and these are summarized under the concepts on the one hand of the formation of individual opinions, of cultural development and entertainment, and on the other hand, of the consideration of the special charactrristics of the country. A suitable presentation of the variety of events and views would, as the Federal Council states in its announcement, be in line with our pluralistic society and our kind of state, which in its diversity must repeatedly reaffirm its unity.

No SRG Monopoly

The constitutional amendment specifically does not provide for an SRG monopoly; rather, several broadcasters can become involved in this task. The broadcasters would, however, have to be independent both of the state and of nonstate groups. A state-controlled or directed radio is thus excluded. Conversely, however, the state is at the same time supposed to be the guarantor of the fact that the broadcasters could not be unilaterally influenced by certain political, economic or cultural interests. At the constitutional level, however, there is no intention of issuing regulations on the organization of radio and TV broadcasters. This will be the job of legislation, which also includes the control of responsibility and the internal development of program freedom. In this, it must expressly set forth the fact that a broadcaster has the duty of controlling, according to the sense of the constitution, the rights and duties associated with the activity of those responsible for the programs, for example by editorial statutes or internal directions.

In respect to the question of financing various radio systems the announcement insists that complete decontrol of advertising is out of the question. Thus, once again in the implementing legislation there will by necessity be restrictions on advertising which relate to time and objectivity, possibly even to scale.

Independent Court of Appeals

Finally, the draft of a radio and television amendment provides for the creation of an independent court of appeals. It would be independent both in respect to function and personnel, that is, to a certain degree a judicial organ not under the control of parliament and the Federal Council. On the level of law, its powers likewise require even closer control. It is still to be determined in particular whether this committee is to be accorded only a power of determination, or whether it can render judgments with sanctions. The Federal Council has not committed itself in this matter. Important for it, however, is the fact that within the meaning of a uniform application of the law, the decision of a court of appeals could be contested and if need be could be taken to the Federal Supreme Courts. In the opinion of the Federal Council the program grievance should also be introduced as a new legal remedy; this would be available to agencies, units and individual persons. Yet formal criteria must be established which would have to be fulfilled so that a grievance is in fact handled and the court of appeals is not overwhelmed with such petitions.

Vague Suggestions For Legislation

A government commission of experts is presently still at work on an overall media conception. Among other things, it is charged with developing a law for radio and television. The Federal Council does not want to anticipate this work. The direction to be taken in the implementing legislation is therefore only vaguely suggested in the announcement concerning the radio and TV amendment. For pressing practical reasons, namely in respect to the new technologies--especially cable radio--the constitutional amendment would nevertheless have to be dealt with prior to the overall media conception.

12124
CSO: 5500/2268 END

END OF
FICHE
DATE FILMED
1 Sept. 1981